

63328-65	EWI(d)/T	Pg-1/Sh-1	UR/2532765/000/014/0221/0244
ACCESSION NR:	AP501761		
AUTHOR:	Bazmardzhyan, R. A. (Yerevan); Belotskiy, M. I. (Yerevan); Grigoryan, A. N. (Yerevan); Gyulmisanian, S. A. (Yerevan); Karapetyan, T. V. (Yerevan); Makaryan, L. S. (Yerevan); Pogosova, S. S. (Yerevan); Ter-Nikaelyan, T. H. (Yerevan); Tel'yan, G. D. (Yerevan)		
TITLE:	An algorithm for Armenian-Russian machine translation. I (General description)		
SOURCE:	Problemy kibernetiki, no. 14, 1965, 221-244		
TOPIC TAGS:	translation algorithm; machine translation; syntactic analysis; syntactic synthesis; idiom identification		
ABSTRACT:	The algorithm for Armenian-Russian machine translation whose general description is presented in this article is based on the principle of independent analysis and synthesis. This means that during the first stage of the operation the machine carries out the grammatical and meaning analysis of the Armenian text while during the second it synthesizes the corresponding Russian text on the basis of the information gathered during the analysis. The authors outline the structure of the dictionary and the method of morphological synthesis of the Russian sen-		
Card 1/2			

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tence and describe the labels used by the algorithm during the syntactic analysis and label synthesis. They also describe procedures for arriving at the correct meaning of multiple meaning words and for the identification of idioms. The article concludes with four examples of translation of mathematical texts. "The authors thank V. V. Ivanova, O. S. Kulagina, I. A. Mel'chuk, T. N. Moloshnaya and V. A. Uspenskiy for their help, fruitful ideas and valuable advice." Orig. art. trans.: 12 formulas and 7 tables.

ASSOCIATION: FORD

SEARCHED: 23 Jan 64

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OTHER: \$000

Cord 2/2

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ACCESSION NR:	AP5017514		
AUTHOR:	Abelyan, N. S. (Yerevan); Bazzazizyan, R. A. (Yerevan); Gabrielyan, E. P. (Yerevan); Melik-Acharyan, Zhd. M. (Yerevan); Karapetyan, T. V. (Yerevan); Ter-Mikaelyan, T. N. (Yerevan)		
TOPIC:	An algorithm for Armenian-Russian machine translation. II (Realization of the program)		16
SOURCE:	Problemy Kibernetiki, no. 14, 1965, 245-266		
TOPIC TAGS:	translation algorithm, machine translation, sentence coding		
ABSTRACT:	This is the second part of a paper describing an algorithm for Armenian-Russian machine translation developed at the Vychislitel'nyy Tsentr (Computer Center) AN Arm. SSR and YerGU. It describes the realization of the program of the algorithm on an automatic digital computer having a 2048-cell operative and 4096-cell outer memory. The basic principles of all the concepts utilized are due to O. S. Kulagin (Problemy kibernetiki, no. 2, 1959, 289-302). An outline of the algorithm's structure and the method of sentence coding is followed by a description of the scheme of the algorithm and of all the auxiliary information. A brief summary of the master and interpretation programs is also		
CARD:	1/2		

I-63-25-05			
ACCESSION NR: AP5017614			4
<p>Given. "The authors sincerely thank M. L. Balitskiy, O. S. Kulagina, and I. A. Mel'chuk. They also thank I. D. Savitskii who was very helpful during the writing of the first two sections of this article." Orig. art. has: 12 formulas, 9 figures, and 1 table.</p>			
ASSOCIATION: None			
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Card No: 2/2			

KARASYUK, Ye.

Shifting to a seven-hour working day in the merchant marine. Sots.
trud. 4 no.10:130-131 0 '59 (MIRA 13:3)

1. Starshiy inzhener Chernomerskogo tekhnicheskogo flota.
(Merchant marine) (Hours of labor)

KARAUSHEV, A.V.

Sediment transportation in reservoirs and lakes caused by wind currents. Trudy GGI no.86:53-66 '60. (MIRA 14:4)

(Sedimentation and deposition)

TEMNIKOVA, T.I.; KARAVAN, V.S.

Chemical transformations of α -halo ketones. Part 10: Reaction of
 α -halodeoxybenzoins and α -halocaryldeoxybenzoins with sodium
methylate in methanol. Zhur. ob. khim. 34 no.10:3157-3164 O '64.
(MIRA 17:11)

1. Leningradskiy gosudarstvennyy universitet.

TEMNIKOVA, T.I.; KARAVAN, V.S.

Kinetics of the reaction of substituted β -haloacetoxybenzoins
with sodium methylate in methyl alcohol. Zhur.org.khim. 1
no.3:609-610 Mr '65. (MIRA 18:4)

1. Leningradskiy gosudarstvennyy universitet.

TEMNIKOVA, T.I.; KARAVAN, V.S.; SEMENOVA, S.N.; ATAVIN, A.S.; MIRSKOVA, A.N.; CHIPANINA, N.N.; PRELOVSKAYA, R.A.; AKIMOVA, G.S.; CHISTOKLETOV, V.N.; PETROV, A.A.; MINGALEVA, K.S.; GOLODOVA, K.G.

Letters to the editors. Zhur. org. khim. 1 no.11:2076-
2078 N '65. (MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet (for Temnikova, Karavan, Semenova). 2. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR (for Atavin, Mirskova, Chipanina, Prelovskaya). 3. Leningradskiy tekhnologicheskiy institut imeni Lensoveta (for Akimova, Chistokletov, Petrov).

KURTOVIC, Dervis; KARAVANIC, Josip, inz.; BARCAL, Laslo, inz.;
BEHLILOVIC, Fehim, inz.; RADOSEVIC, Nikola

Discussion on submitted reports and communications. Geod
list 17 no. 4/6: 149-156 Ap-Je '63.

KARAVANIC, Josip, inz. (Zagreb)

Something on the maintaining of state cadastral measuring. Geod list
16 no.1/3:91-102 '62.

KARAVANOV, A.G. (Kalinin, Pervomayskaya naberezhnaya, d.74, kv.5)

Bronchogenic mediastinal cysts. Grud. khir. I no.3:98-102
'59. (MIRA 15:3)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.G.
Karavanov) Kalininskogo meditsinskogo instituta (dir. -
dotsent A.N. Kushnev) na baze Oblastnoy klinicheskoy bol'nitsy
(glavnnyy vrach & zasluzhennyi vrach RSFSR A.A. S okolov).
(MEDIASTINUM---TUMORS)
(CYSTS)

KARAVANOV, A.G. (Kalinin, Pervomayskaya ul., 74, kv.5)

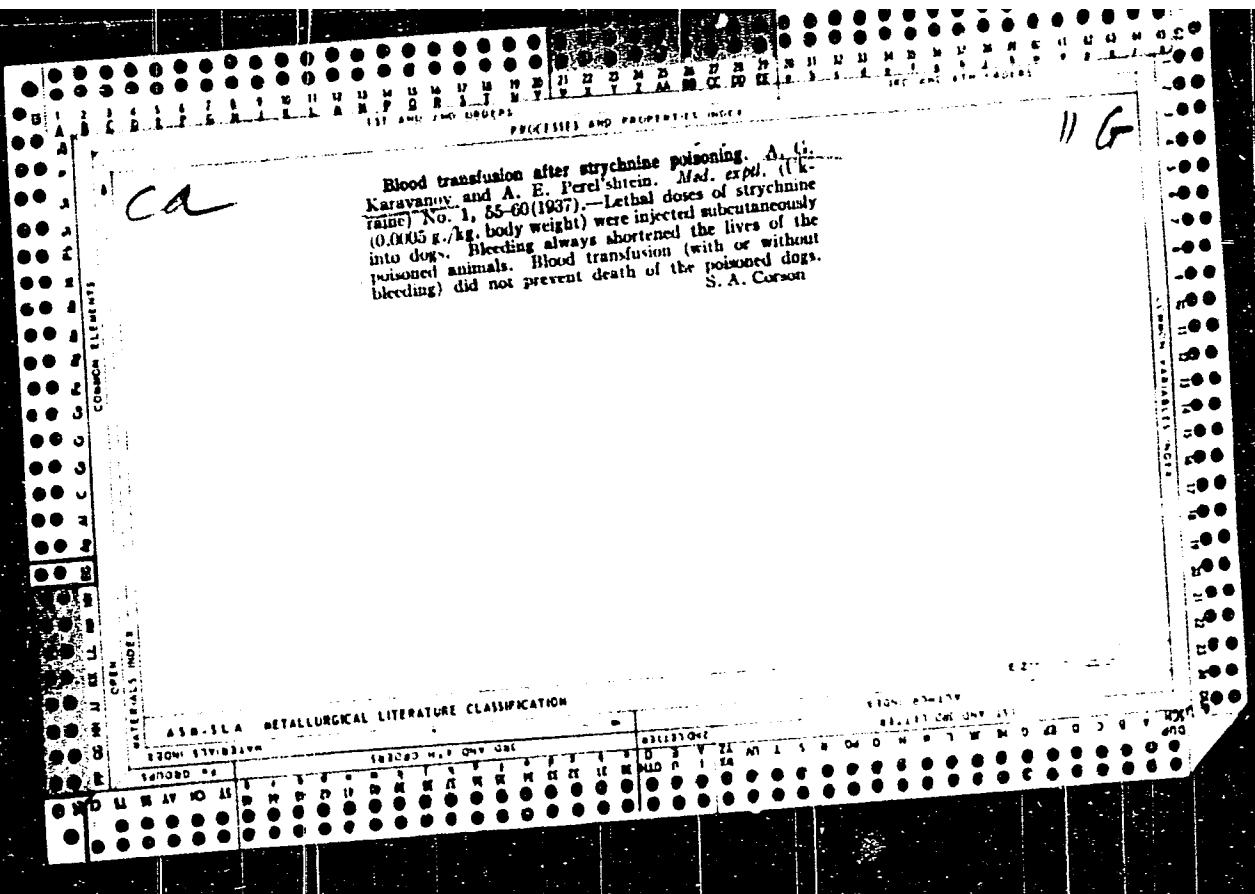
Surgical treatment of adhesive pericarditis. Grud. khir.
2 no.1:60-63 Ja-F :60. (MIRA 15:3)

1. Iz kafedry fakultotskoy khirurgii (zav. - prof.
A.G. Karavanov) Kalininskogo meditsinskogo instituta (dir.
- dotsent A.N. Kushnev) na baze Kalininskoy oblastnoy
klinicheskoy bol'nitsy (glavnnyy vrach - zasluzhennyj vrach
RSFSR A.A. Sokolov).
(PERICARDITIS)

KARAVANOV, A.G.

Abscesses of the heart. Kardiologija 2 no.2:86-87 Mr-Ap '62.
(MIRA 15:4)

1. Iz kafedry fakul'tetskoy khirurzii (zav. - prof. A.G.Karavanov)
Kalininskogo meditsinskogo instituta (dir. - dotsent A.N.Kushnev)
na baze Oblastnoy bol'nitsy (glavnnyy vrach - zasluzhennyy vrach
RSFSR A.A.Sokolov); (HEART--ABSCESS)

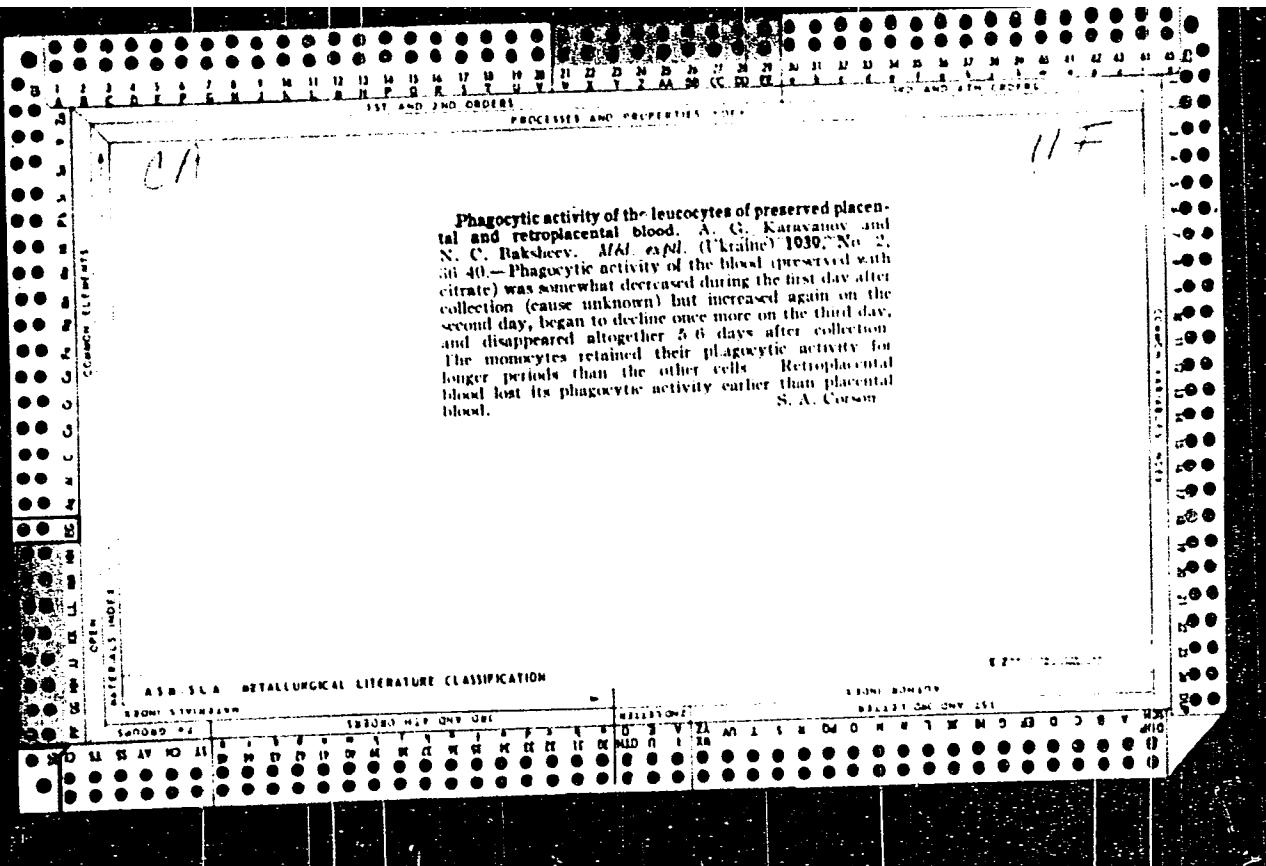


The effect of lowered atmospheric pressure on the pH of blood and changes of this index after blood transfusions. A. G. Karavayev and I. B. Blok. *Med. expd. (Ukraine)* 1939, No. 1, 43-60; *Khim. Referat. Zhur.* 1939, No. 11, 41.—After blood transfusions the rabbits were able to better withstand rarified atm. (up to 240 mm.) and the pH of blood shifted in the alk. direction. In the control animals (without transfusions) a lower atm. pressure caused a change of pH in the acid direction. W. R. Henn

W. R. Henn

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KARAVANOV, A. G.

Karavanov, A. G. - "Drip blood transfusion," In the symposium: V. N. Shamov, Kiev, 1949,
p. 197-99

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720620019-4"

KARAVANOV, A. G.

Karavanov, A. G. - "On supplementary pancreas," In the symposium: V. N. Shamov, Kiev, 1949, p. 285-88

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

KARAVANOV, A.G., prof. (Kalinin (oblastnoy) Pervomayskaya nab. d. 74, kv. 5).

Ectopia cordis and attempts to correct this abnormality, Vest.
khir. 81 no.11:111-113 N '58. (MIRA 12:3)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.G.
Karavanov) Kalininskogo meditsinskogo instituta i Kalininskoy
oblastnoy bol'nitsy (glavnnyy vrach - zasluzhennyy vrach RSFSR
A.A.Sokolov).

(HEART--ABNORMALITIES AND DEFORMITIES)

KARAVANOV, A.G., prof.; REVIS, V.A., kand.med.nauk; SHLEYFER, M.Ya.

Treatment of acute radiation sickness by experimental transplantation
of bone marrow and the spleen. Vrach.delo no.1:45-51 '59.

(MIRA 12:4)

1. Klinika fakul'tetskoy khirurgii (zav. - prof. A.G. Karavanov)
Kalininskogo meditsinskogo instituta i oblastnaya klinicheskaya bol'-
nitsa.

(RADIATION SICKNESS)
(MARROW--TRANSPLANTATION)

KARAVANOV, A.G., prof.; VYSOTSKIY, N.N., prof.; ZHURAVSKIY, L.S.

Ligation of the internal mammary arteries in stenocardia. Vrach. delo
no.10:70-74 O '61. (MIRA 14:12)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. A.G.Karavanov) i
kafedra fakul'tetskoy terapii (zav. - prof. N.N.Vysotskiy) Kalinin-
skogo meditsinskogo instituta i oblastnaya bol'nitsa.
(ANGINA PECTORIS) (ARTERIES--LIGATION)
(BREAST--BLOOD SUPPLY)

KARAVANOV, A.G., prof.; REVIS, V.M., kand.med.nauk

Use of a commercial television apparatus (PTU-3) for televising operations. Khirurgiia 37 no.1:128-130 Ja '61. (MIRA 14*2)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. A.G. Karavanov) Kalininskogo meditsinskogo instituta na baze Oblastnoy klinicheskoy bol'nitsy (glavnnyy vrach - zasluzhennyy vrach RSFSR A.A. Sokolov). (TELEVISION IN MEDICAL EDUCATION)

KARAVANOV, A.G.; POPOV, L.N.; VOLCHEK, V.M.

Diagnosis and excision of calculi in the pancreas. Kaz. med. zhur.
no.6:58-59 N-D '61. (MIRA 15:2)

1. Kafedra fakultetskoy khirurgii (zav. - prof. A.G.Karavanov)
Kalininskogo meditsinskogo instituta i Kalininskaya oblastnaya
bol'niitsa (glavnyy vrach ~ A.A.Sokolov).
(PANCREAS SURGERY) (CALCULI)

KARAVANOV, A. G.

Gastrogenic cysts of the posterior mediastinum. Grud. khir. 4
(MIRA 15:2)
no.1:116-118 Ja-F '62.

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A. G. Karavanov)
Kalininskogo meditsinskogo instituta (dir. - dotsent A. N. Kus'mev)
na baze Kalininskoy oblastnoy bol'nitsy (glavnnyy vrach - zaslu-
zhennyy vrach RSFSR A. A. Sokolov)

(MEDIASTINUM—TUMORS)

KARAVANOV, A.G.; VOLCHEK, V.M.

Further observations on the use of the UKL-60 apparatus. Trudy
(MIRA 15:8)
NIIEKHAI no.5:36-38 '61.

1. Iz kafedry fakul'tetskoy khirurgii Kalininskogo meditsinskogo
instituta. (LUNGS--SURGERY) (SUTURES)

KARAVANOV, A.G., prof.; VOLCHEK, V.M.; ZAGORODNYAYA, V.G.

Celomic cysts of the pericardium. Khirurgiia no.9:44-48 '62.
(MIRA 15:10)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.G. Karavanov) Kalininskogo meditsinskogo instituta na baze Oblastnoy klinicheskoy bol'nitsy (glavnnyy vrach - zasluzhennyy vrach RSFSR A.A.Sokolov).
(CYSTS) (PERICARDIUM--TUMORS)

KARAVANOV, A.G., prof. (Kalinin); FEYGEL', I.I. (Kalinin);
CHERNIAVSKIY, I.A. (Kalinin)

Functional state of the thyroid gland in the early stages
of pregnancy and immediately after an abortion. Probl.
endok. i gorm. 9 no.3:102-106 My-Je '63. (MIRA 17:1)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. I.I.
Feygel') i kafedry fakul'tetskoy khirurgii (zav. - prof.
A.G. Karavanov) Kalininskogo meditsinskogo instituta na baze
Kalininskoy oblastnoy bol'nitsy (glavnnyy vrach - zasluzhennyj
vrach RSFSR A.A. Sokolov).

KARAVANOV, A.G., prof.; VOLCHEK, V.M.

Immediate and remote results of the Petrovskii method of
esophagoplasty in cardiospasm. Khirurgika 39 no.6 18-20
Ja '63. (MIRA 17:5)

Iz khirurgicheskogo otdeleniya Kalininskoy oblastnoy bel'nitsy
1. Iz khirurgicheskogo otdeleniya Kalininskoy oblastnoy bel'nitsy
(glavnyy vrach - zasluzhennyy vrach RSFSR A.A. Sokolov).

KARAVANOV, A.G., prof.; VOLCHEK, V.M.

Pulmonary hamartomas. Khirurgiia 39 no.8:42-43 Ag '63.
(MIRA 17:6)

1. Iz chirurgicheskogo otdeleniya Kalininskoy oblastnoy
bol'nitsy (glavnnyy vrach - zasluzhennyy vrach RSFSR A.A. Sokolov).

KARAVANOV, A.G.; LAVRIK, S.S.; UMANSKIY, M.A.

Clinical effectiveness of fibrinogen in acute hemorrhages. Cemat. i
perel. krovi 1:7-12 1965. (MIRA 18:10)

I. Kiyevskiy institut perelivaniya krovi.

KARAVANOV, A.G., prof.; UMANSKIY, M.A., kand. med. nauk; KREMEN', M.G.

First experience in the use of a Soviet-made fibrinogen in
surgery with artificial circulation. Klin. khir. no.2:18-22 '65.
(MIRA 18:10)

1. Kiyevskiy institut perelivaniya krovi i Ukrainskiy institut
tuberkuleza i grudnoy khirurgii.

KARAVANOV, A.Y.; KASARDA, V.V.

Refractometric modifications in blood plasma during sleep therapy; preliminary report. Medych.zhur.24 no.1:24-27 '54.

1. Vinnits'kiy medichnyiy institut, klinika zagal'noi khirurgii.

(BLOOD,
refractometric changes in sleep ther.)

(SLEEP, effects,
on blood refractometric changes)

KARAVANOV, G. G.

Karavanov, G. G. and Dmitsov, K. Ye. - "The effect of arteriovenous aneurysm on the cardiovascular system," In the symposium: V. N. Shamov, Kiev, 1949, p. 67-76

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

KARAVANOV, G. G.

Karavanov, G. G. - "Treatment of obliterating endarteritis by internal arterial administration," In the symposium: V. N. Shamov, Kiev, 1949, p. 107-16

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

KARAVANOV, G.G.

Collateral blood circulation in operations of traumatic
aneurysm. Sovet. med. 17 no.10:35-36 Oct. 1953.

(CIML 25:5)

1. Professor. 2. Of the Clinic of Faculty Surgery, L'vov
Medical Institute (Director -- Prof. L.N. Kuzmenko).

KARAVANOV, G.G., professor (L'vov)

Surgical removal of a needle from the heart. Khirurgiia no.9:
67 S '54. (MLRA 7:12)

(HEART, foreign bodies,
needle, extraction)

(FOREIGN BODIES,
heart, surg. extraction of needle)

KARAVANOV, G.G., professor.

Traumatic arterial aneurysm a. comitans n. ischiadici. Vest.
khir. 74 no.1:70 Ja-F '54. (MLRA 7:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zaveduyushchiy -
professor G.G.Karavanov) L'vovskogo gosudarstvennogo meditsinskogo
instituta. (Aneuryams)

KARAVANOV, G.G., professor

Methods of surgical treatment in elephantiasis of lower extremities.
Sov.med. 19 no.4:73-75 Ap '55. (MLRA 8:6)

1. Iz kliniki fakul'tetskoy khirurgii L'vovskogo meditsinskogo in-
stituta (dir.-prof. L.N.Kuzmenko).

(ELEPHANTIASIS,

legs, surg., method)

(LEG, dis.,

elephantiasis, surg., method)

KARAVANOV, G.G., professor

Method for the surgical treatment of arteriovenous fistula. Sov.med.
19 no.12:70-71 D 1954. (KLIMA 10:9)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. G.G.Karavanyov)
Lvovskogo meditsinskogo instituta (dir. - prof. L.N.Kuzmenko)
(FISTULA) (ARTERIES--SURGERY) (VEINS--SURGERY)

KARAVANOV, G.G., professor; SPEKTOR, F.A., kandidat meditsinskikh nauk

Surgical treatment of acute cholecystitis, Sov.med. 20 no.10:48-55
0 '56.

(MLRA 10:1)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. G.G.Karavanov)
L'vovskogo meditsinskogo instituta (dir. - prof. L.N.Kuzmenko)
(CHOLECYSTITIS, surg.)

KARAVANOV, G.G., professor

Chronic duodenostases. Sov.med. 20 no.7:51-56 J1 '56. (MLRA 9:10)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. G.G.Karavanov)
L'vovskogo meditsinskogo instituta (dir. prof. L.N.Kuzmenko)
(DUODENUM, blood supply
stasis, differ. diag.)

KARAVANOV, G.G., professor (L'vov, ul. Saksaganskogo, d.9, kv.5)

Surgical treatment of stenosis of the cardiac orifice caused by chronic spasm. Nov.khir.arkh. no.4:36-39 Jl-Ag '57. (MIRA 10:11)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. G.G.Karavanov)
L'vovskogo meditsinskogo instituta.
(ESOPHAGUS--SURGERY)

KARAVANOV, G.G.
KARAVANOV, G.G., prof. (L'vov)

~~Novocaine block of the anterior mediastinum in surgical operations
on the thyroid gland.~~ Vrach.delo no.12:1301-1303 D '57. (MIRA 11:2)

1. Klinika fakul'tetskoy khirurgii (zav. - prof. G.G.Karavanov)
L'vovskogo meditsinskogo instituta.
(THYROID GLAND--SURGERY)
(LOCAL ANESTHESIA) (NOVOCAIN)

KARAVANOV, G.G., prof.

Wounds of the heart. Khirurgiia 34 no.3:114-116 Mr '58. (MIEA 12:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. G.G. Karavanov)
L'vovskogo meditsinskogo instituta (dir. - prof. L.N. Kuzmenko).
(HEART, wds. & inj.
surg. management (Rus))

KARAVANOV, G.G., prof., SPEKTOR, F.A., kand.med.nauk

Technic of cholecystectomy and choledochotomy in acute cholecystitis.
Sov.med. 22 no.7:44-49 Jl '58 (MIRA 11:10)

1. Iz kliniki fakul'tetskoy khirurgii (zav. kafedroy - prof.
G.G. Karavanov) L'vovskogo gosudarstvennogo meditsinskogo instituta.
(CHOLECYSTECTOMY, in various dis
acute cholecystitis, technic (Rus))
(BILE DUCT, COMMON, surg.
choledochotomy in acute cholecystitis, technic (Rus))

KARAVANOV, G.G., prof. (L'vov, ul.Saksaganskogo, d.9, kv.5); SPEKTOR, F.A.,
dotsent

Surgery in acute cholecystitis. Nov.khir.arkh. no.3:3-13
My-Je '59. (MIRA 12:10)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. G.G. Karavanov)
lechebnogo fakul'teta L'vovskogo meditsinskogo instituta.
(GALL BLADDER--DISEASES)

KARAVANOV, G.G., prof.; KROPIL'NITSKIY, Z.N.

Report on thyroid surgery based on data from a conference at
the Lvov Medical Institute. Nov.khir.arkh. no.4:139-142
Jl-Ag '59. (MIRA 12:11)
(THYROID GLAND--SURGERY)

KARAVANOV, G.G., prof. (L'vov, ul. Saksaganskogo, d.9, kv.5); VALIGURA, Ya.S.,
kand.med.nauk

Late results of surgery in constrictive pericarditis. Nov.khir.arkh.
no.6:8-12 N-D '59. (MIRA 13:4)

1. Kafedra fakul'tetskoy khirurgii (zaveduyushchiy - prof. G.G.
Karavanov) lechebnogo fakul'teta L'vovskogo meditsinskogo insti-
tuta.

(PERICARDITIS)

(HEART--SURGERY)

KARAVANOV, G.G., prof. (L'vov, Saksaganskaya ul., d. 9, kv. 5)

Extraperitoneal fixation of the rectum in prolapse. Vest.khir.
82 no.2:115-118 F '59. (MIRA 12:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. G.G. Karavanov) L'vovskogo meditsinskogo instituta (dir. - prof. L.N. Kuzmenko).

(RECTUM, dis.
prolapse, surg., extraperitoneal fixation (Rus))

KARAVANOV, G.G., prof.; RETVINSKIY, A.N.

Use of a vagosympathetic block in the treatment of acute pancreatitis.
Sov.med. 23 no.10:103-106 O '59. (MIRA 13:2)

1. Iz kliniki fakul'tetskoy khirurgii (zaveduyushchiy - prof. G.G. Karavanov) L'vovskogo meditsinskogo instituta (direktor - prof. L.N. Kuzmenko).

(PANCREATITIS therapy)
(ANESTHESIA, CONDUCTION)

KARAVANOV, G.G., prof.; FIL'TS, O.V. (L'vov)

Pathological syndromes following resection of the stomach. Klin.med.
37 no.11:32-37 N '59. (MIRA 13:3)

1. Iz kliniki fakul'tetskoy khirurgii lechebnogo fakul'teta (zavedu-
yushchiy - prof. G.G. Karavanov) L'vovskogo meditsinskogo instituta
(direktor - prof. L.N. Kuzmenko).
(GASTRECTOMY complications)

KARAVANOV, G.G., prof. (L'vov, ul.Saksaganskogo, d.9,kv.5); SPEKTOR, F.A.,
kand.med.nauk

Repeated operations on the biliary tract. Nov. khir. arkh. no.1:
27-32 Ja-F '60. (MIRA 15:2)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. G.G.Karavanov),
lechebniogo fakul'teta L'vovskogo meditsinskogo instituta.
(BILIARY TRACT SURGERY)

AMINEV, A.M., prof.; BEREZOV, Ye.L., prof.; BISENKOV, N.P., kand. med. nauk; BRAYTSEV, V.R., prof.; DEYNEKA, I.Ya., prof.; DYSKIN, Ye.A., kand. med. nauk KAZANSKIY, V.I., prof.; KARAVANOV, G.G., prof.; LEVIN, M.M., prof.; MAKSIMENKOV, A.N., prof.; MAYAT, V.S., prof.; NAPALKOV, P.N., prof.; ROZANOV, B.S., prof.; RUSANOV, A.A., prof.; RUSANOV, G.A., kand. med. nauk; FILATOV, A.N., prof.; CHUKHRIYENKO, D.P., prof.; SHILOVTSEV, S.P., prof.; PETROVSKIY, B.V., prof., otv. red.; MEL'NIKOV, A.V., prof., red. toma; SUVORCVA. T.A., dots., red.; MIROTVORTSEVA, K.S., red.; RULEVA, M.S., tekhn. red.

[Multivolume manual on surgery] Mnogotomnoe rukovodstvo po khirurgii. Moskva, Medgiz. Vol.7. [Surgery of the abdominal wall and organs of the abdominal cavity, the stomach and intestines] Khirurgija briushnoi stenki, organov briushnoi polosti-zheludka i kishechnika. 1960. 746 p. (MIRA 15:3)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Braytsev, Petrovskiy, Mel'nikov). 2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Maksimenkov, Filatov).

(ABDOMEN—SURGERY)

KARAVANOV, G.G.; PAVLOVSKIY, M.P.

New variation of portacaval anastomosis in the treatment of portal hypertension. Eksper. khir. 5 no. 2:50 Mr-Ap '60. (MIRA 14:1)
(PORTACAVAL ANASTOMOSIS) (HYPERTENSION)

KARAVANOV, G.G., prof.; SYCHEV, G.G.

Venous thrombosis and the postphlebitic syndrome of the lower extremities. Nauch. trudy L'vov. obl. terap. ob-va no.1:34-40 '61.
(MIRA 16:5)

1. Klinika fakul'tetskoy khirurgii lechebnogo fakul'teta L'vovskogo meditsinskogo instituta (zav. kafedroy - prof. G.G. Karavanov).
(THROMBOSIS) (PHLEBITIS)
(EXTREMITIES, LOWER--DISEASES)

KARAVANOV, G.G. [Karavanov, H.H.], doktor med.nauk, prof.

Search und discovery. Nauka i zhyttia 11 no.1:10-12 Ja '61.
(MIRA 14:3)

1. Zaveduyushchiy kafedroy fakul'tetskoy khirurgii L'vovskogo
medinstituta.

(LVOV—SURGERY—STUDY AND TEACHING)

KARAVANOV, G. G., prof.; MAZUR, I. V.

Intra-arterial infusion of a special combined solution in the
compound treatment of endarteritis. Khirurgia no. 2:35-40 '62.
(MIRA 15:2)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. G. G.
Karavanov) lechebnogo fakul'teta L'vovskogo meditsinskogo
instituta.

(ARTERIES—DISEASES)

KARAVANOV, G. G., prof.; KHARKHUTA, A. F., kand. med. nauk

Discussion of the article by Professor G. S. Toprover and S. A. Nesterov, "A new method for treating varicose veins of the lower extremities". Nov. khir. arkh. no.2:77-79 '62.

(MIRA 15:2)

(VARIX)

KARAVANOV, G.G., prof. (L'vov, ul. Saksaganskogo, d.9, kv.5);
FIL'TS, O.V., kand.med.nauk

Dumping syndrome; a survey of the Soviet and foreign literature.
Klin.khir. no.11:6-15 N '62. (MIRA 16:2)

l. Kafedra fakul'tetskoy khirurgii (zav. - prof. G.G. Karavanov)
lechebnogo fakul'teta L'vovskogo meditsinskogo instituta i 2-ye
khirurgicheskoye otdeleniye L'vovskoy oblastnoy klinicheskoy
bol'nitsy.

(DUMPING SYNDROME)

KARAVANOV, G.G., prof. (Lvov, ul. Saksaganskogo, d.9, kv.5)

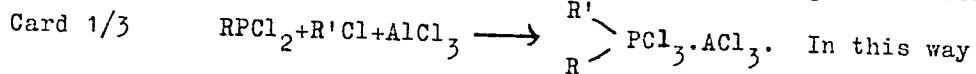
Services of V.N. Shamov, Active Member of the Academy of Medical Sciences of the U.S.S.R., in the development of Soviet surgery.
Klin.khir. no.12:3-8 D '62. (MIRA 16:2)
(SHAMOV, VLADIMIR NIKOLAEVICH, 1882-)

AUTHORS: Ivin, S. Z., Karavanov, K. V. SOV/79-28-11-11/55

TITLE: On the Reaction of Sulfur and Inorganic Sulfides With
the Complex Compounds of Dialkyl Trichloro Phosphines
and of Aluminum Chloride (O vzaimodeystvii sery i
neorganicheskikh sul'fidov s kompleksnymi soyedineniyami
dialkiltriklorfosfinov i khloristogo alyuminiya)

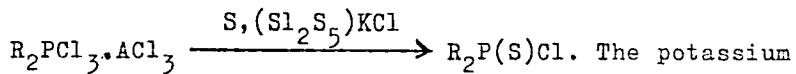
PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11,
pp 2958 - 2960 (USSR)

ABSTRACT: The initial complex compounds of the dialkyl tri-chloro phosphines with AlCl_3 remained unknown until recently. According to reference 1 it was mentioned that alkyl dichloro phosphines in the presence of AlCl_3 form solid compounds with alkyl chloride, the complexes themselves were, however, not characterized. The authors obtained the complex compounds also by the reaction of alkyl dichloro phosphine with alkyl chloride and aluminum chloride according to the scheme



On the Reaction of Sulfur and Inorganic Sulfides With SOV/79-28-11-11/55
the Complex Compounds of Dialkyl Trichloro Phosphines and of Aluminum
Chloride

complexes of dimethyl, methyl-ethyl, and diethyl tri-chloro phosphine with AlCl_3 were synthesized. They are white crystalline compounds that easily enter reaction with others. On their heating with sulfur or arsenic, antimony, phosphorus, or aluminum sulfides and other compounds in the presence of freshly annealed potassium chloride the acid chloride of the dialkyl thiophosphinic acid is obtained:



The potassium chloride in this case binds the aluminum chloride which fact considerably increases the yield of perchloric anhydride of the acid. The physical constants of the acid chlorides of dimethyl, methyl-ethyl, and diethyl thiophosphinic acids synthesized by the authors agree with those described in publications (Ref 2). There are 2 references, 1 Soviet reference.

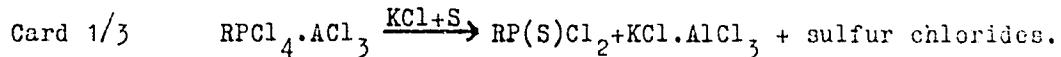
Card 2/3

AUTHORS: Komkov, I. P., Ivin, S. Z.,
Karavanov, K. V. SOV/79-28-11-12/55

TITLE: On the Reaction of Sulfur and of Inorganic Sulfides With
Complex Compounds of the Alkyl Tetrachloro Phosphines
and of Aluminum Chloride (Zaimodeystvii sery i neorganiches-
kikh sul'fidov s kompleksnymi soyedineniyami alkiltetra-
khlorfosfinov i khloristogo alyuminiya)

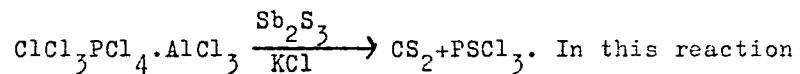
PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11,
pp 2960 - 2962 (USSR)

ABSTRACT: The authors investigated the reaction of the complex
compounds of the alkyl tetrachloro phosphines and of
aluminum chloride with sulfur, sulfides of metals and
non-metals. On a heating of the mixture of the said
complex with sulfur in the presence of freshly annealed
potassium chloride the acid dichlorides of the alkyl
thiophosphinic acid in a yield of 80% is obtained
according to the scheme:



On the Reaction of Sulfur and of Inorganic Sulfides SOV/79-28-11-12/55
With Complex Compounds of the Alkyl Tetrachloro Phosphines and of
Aluminum Chloride

Potassium chloride is used as binding agent of aluminum chloride. Otherwise the yield is decreased to 25-30%. On a heating of the complex compounds with aluminum, potassium, arsenic, antimony, phosphorus sulfide and others in the presence of KCl, the acid dichlorides of the alkyl thiophosphinic acid (yield 70%) are obtained. On a heating of the complex of AlCl_3 and trichloro methyl tetrachloro phosphine with sulfur the initial components phosphorus trichloride and carbon tetrachloride are separated. If this complex compound is heated with arsenic and antimony sulfide the carbon disulfide and phosphorus thio-chlorine oxide are formed:



Card 2/3 first the thermal decomposition of the complex compound in ClCl_4 and PCl_3 takes place; these two react in

On the Reaction of Sulfur and of Inorganic Sulfides SOV/79-28-11-12/55
With Complex Compounds of the Alkyl Tetrachloro Phosphines and of
Aluminum Chloride

the presence of AlCl_3 with the arsenic and antimony sulfide under the formation of CS_2 and PSCl_3 . This assumption was proved by special experiments. There are 2 references.

SUBMITTED: August 29, 1957

Card 3/3



AUTHORS: Komkov, I. P., Karavanov, K. V.,
Ivin, S. Z. SOV/79-28-11-13/55

TITLE: On New Methods of Synthesizing Alkyl Dichloro Phosphines
and Dialkyl Chloro Phosphines (O novykh metodakh polu-
cheniya alkildikhlorfosfinov i dialkilkhlorfosfinov)

PERIODICAL: Zhurnal obshchey khimii, 1956, Vol 28, Nr 11,
pp 2963 - 2965 (USSR)

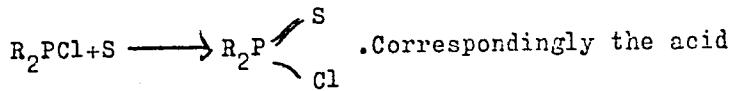
ABSTRACT: The authors devised new convenient methods of
synthesizing alkyl dichloro phosphine (I) and dialkyl
chloro phosphine (II). They consist in the reduction
of the complex compound of alkyl tetrachloro phosphines
or dialkyl trichloro phosphines with $AlCl_3$ by means
of metallic aluminum, red phosphorus and metallic
sodium in the presence of freshly annealed KCl (Scheme).
As found already earlier KCl considerably increases
the yields. Metallic aluminum in the form of aluminum
dust proved to be the best reducing agent. Raw
phosphorus in the reaction process yields PCl_3 which
hampers the formation of phosphines. The reaction

Card 1/3

On New Methods of Synthesizing Alkyl Dichloro Phosphines and Dialkyl Chloro Phosphines

SOV/79-28-11-13/55

of metallic sodium takes place very turbulently which fact also decreases the yields. The above mentioned initial complex compounds are accessible and are correspondingly easily obtained from alkyl chloride, AlCl_3 and PCl_3 , or alkyl dichloro phosphine (Ref 8). To determine the properties and the structure of the dimethyl, methyl-ethyl, diethyl chloro phosphines resulting from the complex compounds sulfur was affiliated to them:



chlorides of dimethyl, methyl-ethyl, and diethyl thiophosphinic acid were separated. Their constants agree with those mentioned in publications (Ref 7). The affiliation of sulfur to the dialkyl chloro phosphines is much easier than it is to the alkyl dichloro phosphines. There are 8 references, 1 Soviet reference.

Card 2/3

KOMKOV, I.P.; IVIN, S.Z.; KARAVANOV, K.V.; SMIRNOV, L.Ye.

Synthesis of alkyl(aryl)tetrafluorophosphines and dialkyltrifluoro-phosphines and their interaction with inorganic sulfides. Zhur. ob. khim. 32 no.1:301-307 Ja '62. (MIRA 15:2)
(Phosphine) (Sulfides)

IVIN, S.Z.; KARAVANOV, K.V.; LYSENKO, V.V.

Complex compounds of alkyl-and polyalkylchlorophosphines
with aluminum chloride. Part 3: Production of complex
compounds of trialkyldichlorophosphines with aluminum
chloride and their reduction. Zhur. ob. khim. 34 no. 3:
852-854 Mr '64.
(MIRA 17:6)

KARAVANOV, K.V.; IVIN, S.Z.

Complex compounds of alkyl and polyalkylborophosphazines with aluminum chloride. Part 4: Interaction of complex compounds of alkyltetrachloro- and dialkyltrichlorophosphazines and aluminum chloride with ethanethiol and pentadecyl thioether. Khim. ob. khim. 35 no.1:78-79 Ju '66. (M.D. 18:2)

KARAVANOV, K.V.; IVIN, S.Z.; LYSENKO, V.V.

Complex compounds of alkyltetrachlorophosphines with aluminum chloride. Part 5: Reaction of the complex compounds of alkyltetrachlorophosphines and aluminum chloride with alkylene oxides and alkylene sulfides. Zhur. ob. khim. 35 no.4:737-738 Ap '65.
(MIRA 18:5)

GRUDOV, V.G.; IVIN, S.Z.; KIRAVANOV, K.V.

Complex compounds formed by alkyl- and polyalkylchlorophosphines
with aluminum chloride. Part 7: Reduction of complex compounds
by metals and metal hydrides. Zhur. ob. khim. 35 no.6:1027-
1029 Je '65. (MFA 13x6)

LEVIN, S.Z.; KARAVANOV, K.V.; LYSENKO, V.V.; LEVIN, V.M.

Reaction of alkylidichlorophosphine oxides with carboxamides.
Zhur. ob. khim. 35 no.10:1879 O '65. (MIRA 18:10)

L 7899-66 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/RM

ACC NR: AP5024971

SOURCE CODE: UR/0286/65/000/016/0033/0033

AUTHORS: Gruzdev, V. G.; Karavanov, K. V.; Ivin, S. Z.

ORG: none

TITLE: Method for obtaining alkyldichlorophosphonates, Class 12, No. 173764
announced by Organization of State Committee for Chemical Industry SSSR
(Organizatsiya gosudarstvennogo komiteta khimicheskoy promyshlennosti SSSR)

SOURCE: Byulleten' izobretений и tovarnykh znakov, no. 16, 1965, 33

TOPIC TAGS: alkyldichlorophosphonate, potassium iodide, aluminum chloride,
chlorinated organic compound, organic phosphorus compound

ABSTRACT: This Author Certificate presents a method for obtaining alkyl dichlorophosphonates by treating complexes of alkyltetrachlorophosphonates and aluminum chloride with a reducing agent. To simplify the method, potassium iodide is used as a reducing agent at 100C.

SUB CODE: 07/ SUBM DATE: 15Jul64

nw
Card 1/1

UDC: 547.419.1.07

L 21799-66 EWT(m)/EMP(j) RM

ACC NR: AP6012644

SOURCE CODE: UR/0079/65/035/001/0078/0079

AUTHOR: Karavanov, K. V.; Ivin, S. Z.

ORG: none

TITLE: Study of complex compounds of alkyl- and polyalkylchlorophosphines with aluminum chloride. IV. Reaction of complex compounds of alkyl tetrachloro- and dialkyltrichlorophosphanes and aluminum chloride with ethylmercaptan and potassium thiocyanide

SOURCE: Zhurnal obshchey khimii, v. 35, no. 1, 1965, 78-79

TOPIC TAGS: complex molecule, chemical reaction, organic phosphorous compound, mercaptan, aluminum chloride, cyanide

ABSTRACT: The reactions of complex compounds alkyltetrachlorophosphines (I) and dialkylchlorophosphanes (II) with ethylmercaptan and potassium thiocyanide were studied. In the reaction of the complex of (I) and (II) with ethyl mercaptan in the presence of calcined potassium chloride, alkylchlorophosphine sulfides (III) are formed with yields up to 75% and dialkylchlorophosphane sulfides (IV) with a yield up to 50%. The reactions evidently occur in two stages. Initially, addition products of ethylmercaptan to the complexes of (I) and (II) are formed with the liberation of hydrogen chloride. Further heating leads to separation of ethylchloride and the products (III) and (IV). Upon heating of the complex compounds

Card 1/2

UDC: 547.661.718.1

L 21799-66

ACC NR: AP6012644

of (I) and (II) with potassium chloride, the compounds (III) and (IV) are formed at yields up to 70-80%. [JPRS]

SUB CODE: 07 / SUBM DATE: 28Oct63 / ORIG REF: 004 / OTH REF: 001

Card 2/2 PB

L 36494-66 EWT(m)/EWP(j) RM

ACC NR: AP6027087

SOURCE CODE: UR/0079/65/035/010/1879/1879

AUTHOR: Ivin, S. Z.; Karavanov, K. V.; Lysenko, V. V.; Levin, V. M.

3/
6

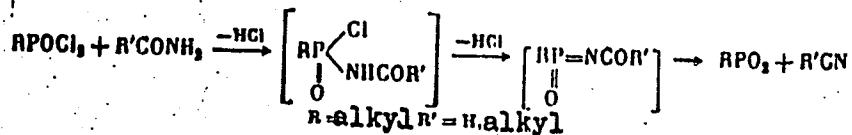
ORG: none

TITLE: Reaction of alkyl dichlorophosphine oxides with carboxylic acid amides

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1879

TOPIC TAGS: phosphorus compound, carboxylic acid, organic amide, acetic anhydride, phosphinic acid, chemical identification, distillation

ABSTRACT: It has been established for the first time that the reaction of alkyl dichlorophosphine oxides with carboxylic acid amides forms anhydrides of alkylphosphinic acids and compounds containing a cyano group. The reaction can be carried out in a solvent (boiling carbon tetrachloride) or without it at 100-130°C. In the latter case the reaction is much faster. The end products are apparently formed in three states:



Reactions of methyl- and ethyldichlorophosphine oxides with amides of formic, acetic, and trifluoroacetic acids were carried out.

Anhydrides of alkylphosphinic acids (CH_3PO_2 , $\text{C}_2\text{H}_5\text{PO}_2$) are formed

in 96% yield. They were identified by elementary analysis and by determining the acidity. Compounds containing a cyano group (HCN, CH_3CN , CF_3CN) were separated by fractional distillation and analyzed. Their content was 93-96%. [JPRS: 36,328]

Card 1/1 mcp

SUB CODE: 07 / SUBM DATE: 30Apr65 UDC: 543.257.1+547.241+547.558.1

Card 1/1

11b

UDC: 547.419.1.07

SEARCHED (100%) INDEXED
SERIALIZED FILED

REF ID: A67474 / 00513R000720620019-4

AUTHOR: KUZNETSOV, V. V.; LITVINOV, V. I.; SOKOLOV, V. I.

CITE: none

TITLE: Pentacovalent organophosphorus compounds. II. Alkylamides of alkyltrifluoro- and dialkylidifluorocorthophosphinic acids

PUB DATE: Chemichal obshchestvo Khimia, v. 36, no. 7, 1966, 1246-1248

SUBTOPIC: amine, organic amide, fluorinated organic compound, organic phosphorus compound

ABSTRACT: Alkylamides of alkyltrifluoro- and dialkylidifluorocorthophosphinic acids were synthesized by the action of amines on alkyltetrafluoro- and dialkyltrifluorophosphines in the presence of substances that bond hydrogen fluoride (potassium fluoride or amines). Good yields of the final products were obtained when an amine was used as the hydrogen fluoride acceptor. Regardless of the amount of the original primary amines, only monoamides were formed; di- and triamides could not be isolated. Seven amides were synthesized and characterized. The alkylamide of methyltrifluoroorthophosphinic acid added bromine at the double bond, forming the 2,3-dibromopropylamide of methyltrifluoro-orthophosphinic acid. Orig. art. has: 1 table. [JPIIS: 38,970]

SUB CODE: 07 / SUBM DATE: 04Jun65 / ORIG REF: 002 / OTH REF: 001

UDC: 547.241

Card 1/1

ACC NR: AP6030556

SOURCE CODE: UR/0413/66/000/016/0032/0032

INVENTOR: Karavanov, K. V.; Ivin, S. Z.; Gruzdev, V. G.

ORG: none

TITLE: Preparation of alkyl(aryl)tetrafluorophosphines or dialkyl trifluorophosphines
Class 12, No. 184851

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 32

TOPIC TAGS: alkyl tetrafluro phosphine, dialkyl trifluorophosphine, aryl tetrafluoro-
phosphine, diaryl trifluorophosphine, ORGANIC PHOSPHORUS COMPOUND,
FLUORINE COMPOUND

ABSTRACT: To simplify the technology of the preparation of alkyl(aryl)tetrafluorophosphines or dialkyltrifluorophosphines by the reaction of organophosphorus compounds with SbF_3 , alkyl(aryl)dichloro(fluoro)phosphine sulfides or dialkylchloro(fluoro)phosphine sulfides are used as the organophosphorus compounds and the process is carried out with heating to 50–120°C. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 25May65/

Card 1/1

UDC: 547.412.13'241.07

11413-07 EWT(m)/EWP(j) RM
ACC NR: AP7003671

SOURCE CODE: UR/0079/66/036/008/1507/1507

AUTHOR: Lysenko, V. V.; Shelakova, I. D.; Karavanov, K. V.; Ivin, S. Z.

ORG: none
TITLE: Pentacovalent phosphorus compounds. Interaction of methyltetrafluorophosphine with carboxylic acid anhydrides

SOURCE: Zhurnal obshchey khimii v. 36, no. 8, 1966, 1507

TOPIC TAGS: alkylphosphine, carboxylic acid anhydride, fluorinated organic compound

ABSTRACT: Methyltetrafluorophosphine was found to react with acetic, propionic, and butyric anhydrides, forming methyldifluorophosphine oxide and fluorides of the corresponding acids. The reaction rate drops with increasing molecular weight of the carboxylic acid anhydride, and the yield of the substances formed decreases. The authors intend to publish a further series of reports on the chemistry of pentacovalent phosphorus compounds under the title, "Derivatives of Phosphorus Acids Containing the P-F Bond." [JPRS: 38,970]

SUB CODE: 07 / SUBM DATE: 04Mar66 / OTH REF: 002

Card 1/1 jb

0926 0206

5.3200
5.3700

AUTHORS:

Lapkin, I. I., Karavanov, N. A.

S/079/60/030/05/50/074
B005/B125

TITLE:

Steric Hindrances in Organomagnesium Reactions. XX. The
Synthesis of Esters of Secondary α -Hydroxy Acids of the
Aliphatic and Alicyclic Series

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1638-1643

TEXT: It had been determined in earlier papers by the first-named author (Refs. 1-6) that the reaction of oxalic acid diesters with aromatic organomagnesium compounds can be checked in the first stage of the reaction under relatively simple conditions. The complex compound which forms in this first stage of the reaction is unstable and decomposes at the boiling point of the ethereal solution (40-42°) according to a given pattern (Ref. 3). Esters of α -hydroxy acid, which contain the hydroxyl group secondarily bound, form by hydrolysis from the decomposition products. In the present report this process is used for the synthesis of aliphatic and alicyclic α -hydroxy carboxyl acid esters. When the organomagnesium compound contains an alkyl radical in the place of an aryl

Card 1/2

Steric Hindrances in Organomagnesium Reactions. S/079/60/030/05/50/074
XX. The Synthesis of Esters of Secondary B005/B125
 α -Hydroxy Acids of the Aliphatic and Alicyclic Series

radical, the complex compound forming in the first stage of the reaction is more stable and decomposes at temperatures of 110-120°. The complete decomposition of the complex can be attained by the addition of toluene, the distilling of the ether and the subsequent boiling of the toluene solution for two hours. When the complex compound contains an alicyclic radical, it decomposes just as in the case of an aryl radical at the boiling of the ethereal solution. The carrying out of all the named organo-magnesium syntheses is thoroughly described in an experimental section. The authors synthesized in this way 19 α -hydroxy acid esters, which had not yet been described in publications. The yield, boiling point (or melting point), gross formula, and percentage composition of the elements are given in a Table for each of these new esters; the refractive index, the density, and molar refraction are given additionally for the liquid esters. There are 1 table and 8 references, 6 of which are Soviet. X

ASSOCIATION: Permskiy gosudarstvennyy universitet (Perm' State University)
SUBMITTED: May 28, 1959

Card 2/2

LIPKIN, I.I.; KARAVANOV, N.A.

Reactions of metal halide alcoholates. Part 9: Interaction between esters of keto acids and magnesium halide alcoholates. Zhur. ob.khim. 30 no.8:2677-2680 Ag '60. (MIRA 13:8)

1. Permskiy gosudarstvennyy universitet.
(Esters) (Alcoholates) (Magnesium organic compounds)

KRATOV, F.; KARAVANOV, V.

For a higher level of production mechanization. Muk.-elev.
prom. 28 no.1:28 Ja '62. (MIRA 16:7)

1. Direktor Belgorod-Dnestrovskoy realizatsionnoy bazy (for
Kratov). 2. Direktor Kanayevskogo khlebopriyemnogo punkta
Penzaeskoy obl. (for Karavanov).
(Grain)

AUTHOR: Karavanov, V.F.

SOV/147-58-1-9/22

TITLE: The Equations of Curved Sandwich Shells with Light Fillings
for Finite Displacements (Uravneniya položenij trekh-slojnykh
obolochek s legkim zapolnitel'cem pri konečnykh smeshcheniih
yakh)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavodov, Aviatsionnaya Tekhnika, 1958, Nr 1, pp 69 - 77 (USSR).

ABSTRACT: This paper gives a generalisation of Reissner's solution (Ref 1) for finite deformations of rectangular sandwich plates on curved sandwich shells. The equations are deduced for curved sandwich shells with a light filling for finite displacements inside the surface of the load bearing layers, in which the filling undergoes small deformations. It is assumed that the thin isotropic load bearing layers are subject to the Kirchoff-Love hypothesis. The filling is assumed light, isotropic and elastic. The thickness of the load bearing layers is assumed small in comparison with the general thickness of the sandwich shell. In deriving the equations, the intrinsic bending strength of the load bearing layers is ignored and in the filling only the transverse displacement and the transverse compressive deformation are taken into

Card 1/2

The Equations of Curved Sandwich Shells with Light Fillings for
Finite Displacements

SOV/147-58-1-9/22

account. Three special cases are quoted. They are: 1) cylindrical curved sandwich shells; 2) spherical curved sandwich shells and 3) rectangular curved sandwich shells. The equations for curved axially symmetrical sandwich shells are written in polar co-ordinates. There are 1 figure and 8 references, 4 of which are Soviet and 4 English.

ASSOCIATION: Moskovskiy aviatcionnyy institut (Moscow Aviation Institute)

SUBMITTED: November 5, 1957

Card 2/2 1. Sandwich panels--Deformation 2. Mathematics--Applications

KARAVANOV, V.F., starshiy prepodavatel'

Axismymmetric sandwich shells with light-weight filler. Izv.
vys.ucheb.zav.; mashinostr. no.6:34-45 '58. (MIRA 12:8)

1. Moskovskiy aviationsionnyy institut.
(Elastic plates and shells)

13000
244200

25830

S/535/60/000/130/005/007
E081/E335

AUTHOR: Karavanov, V.F., Engineer

TITLE: The Equations of Axially Symmetric Three-ply Shells
with a Light FillingPERIODICAL: Moscow. Aviatsionnyy institut. Trudy. No. 130,
1960, Prochnost' aviatsionnykh konstruktsiy.
pp. 110 - 132

TEXT: The paper is a continuation of previous work by the same author (Ref. 1 - Izvestiya vysshikh uchebnykh zavedeniy, Mashinostroyeniye, 1958, No. 6) where the basic formulae are quoted but not derived. In this paper the formulae are derived. The obtained formulae are similar to the equations of the theory of thin uniform axis-symmetric shells of E. Meissner (Ref. 3 - Physikalische Zeitschrift, Vol. 14, No. 8, 1913). The material of the shell is of sandwich construction, consisting of outer bearing layers of metal, plastic, plywood, etc. and a light filling layer of honeycomb construction, corrugated material or foam plastic. The analysis is based on concepts proposed by

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The Equations of ... 25830

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E081/E335

Ref.2

E. Reissner (NACA Rep. 957, 1950) using the same notations. The following assumptions are made: 1) the bending rigidity of the bearing layers can be neglected; 2) the modulus of normal elasticity and shear of the filler are zero in the longitudinal direction and differ from zero in the transverse direction; 3) the filler is regarded as comparatively thick, light, elastic and isotropic, with a relatively low modulus of elasticity; 4) the difference in the lengths of the middle surfaces of the inner and outer layers is to be taken into account. On the basis of these assumptions, the geometry of the shell, the equilibrium of the bearing layers, stress distribution in the filler, and the potential energy of deformation of the shell are considered. The relations between stresses, moments and displacements in the shell are expressed as three equilibrium equations and five relations between stresses and displacements. From these eight equations the eight unknowns can be determined, i.e. the two normal stresses, the shearing stress, two bending moments and three displacements. The eight equations are reduced to two simultaneous second-

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KARAVANOV, V.F.

Strength of shallow cylindrical sandwich panels with a light filler
and fastened longitudinal edges and subjected to axial compression.
Izv. vys. ucheb. zav.; av. tekhn. 3 no. 2:50-60 '60. (MIRA 14:5)

1. Moskovskiy aviatsionnyy institut, kafedra soprotivleniya
materialov.

(Elastic plates and shells)

KARAVANOV, V. F., CAND TECH SCI, "BEND AND STABILITY OF
THREE-PLY SHELLS WITH LIGHT FILLER." MOSCOW, 1961. (MIN OF
HIGHER AND SEC SPEC ED RSFSR. MOSCOW ORDER OF LABOR RED
BANNER ENGINEERING ~~AND~~ CONSTRUCTION INST IMENI V. V. KUY-
BYSHEV). (KL-DV, 11-61, 220).

-151-

ACCESSION NO: AT3003029

S/2942/63/000/001/0087/0096

AUTHOR: Karavanov, V. F. (Candidate of technical sciences)

TITLE: Stability and above-critical behavior under compression of triple-layered tapered cylindrical shells with a light filler

SOURCE: Moscow. Aviatsionnyy institut. Voprosy prochnosti i ustoychivosti elementov tonkostennykh konstruktsiy, no. 1, 1963, 87-96

TOPIC TAGS: buckling, cylindrical shell, tapered shell, sandwich panel, sandwich panel buckling, buckling load

ABSTRACT: The above-critical behavior of a compressed triple-layered cylindrical panel is investigated, and qualitative and quantitative load loss results are presented after instability occurs. The equilibrium equations for this case were derived by L. M. Kurshin (Uravneniya trekhskloynyykh tsilindricheskikh obolochek s legkim zapasnitem, Izv. otd. tekhnich nauk. AN SSSR, No. 3, 1958, stp. 142-144). After providing suitable boundary conditions (loose ends, clamped edge along the axial direction) and integrating, the equation relating the critical load m_t and the bending parameter λ is expressed as follows: $m_t = m_{t_0} + A\lambda^2 - B\lambda$ (where

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ACCESSION NO: AT3003029

w_0 = bending at $x = \frac{a}{2}$, $y = \frac{b}{2}$, a = length, b = circumference, m_t^+ = upper critical load, γ = bending stiffness parameter, Ω = shear strength parameter of filler, and

$$m_t^+ = \frac{1}{\psi^2 \left[0.75 + \Omega \left(1 + \frac{3}{\psi^2} \right) \right]} \left\{ (1 + \gamma) [2 + (1 + \psi^2)^2] + \right.$$

$$+ \gamma \frac{4\Omega}{\psi^2} [2 + (1 + \psi^2)^2] +$$

$$+ \frac{\psi^2}{16} \left\{ \left[2 + \frac{1}{(1 + \psi^2)^2} \right] + \frac{4\Omega}{\psi^2} \left(2 + \frac{1}{1 + \psi^2} \right) \right\};$$

$$A = \frac{1}{\psi^2 \left[0.75 + \Omega \left(1 + \frac{3}{\psi^2} \right) \right]} \left\{ (\psi^2 + 4\Omega) \left[\frac{17}{16\psi^2} + \frac{\psi^2}{2(4 + \psi^2)^2} + \frac{\psi^2}{16} \right] + \right.$$

$$\left. + \Omega \left[\frac{9}{4} + \frac{\psi^4}{(4 + \psi^2)^2} + \frac{\psi^4}{4} \right] \right\};$$

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$$\begin{aligned}
 B &= \frac{\psi^2}{4m\left[0.75 + \Omega\left(1 + \frac{3}{\psi^2}\right)\right] \left(\frac{16}{3} \frac{1}{(1+\psi)^2} \left[1 + 2\Omega\left(1 + \frac{5}{\psi^2}\right)\right] + \right. \\
 &\quad \left. + \frac{8}{3} \frac{1}{(4+\psi)^2} \left[1 + 4\Omega\left(1 + \frac{4}{\psi^2}\right)\right] + \left(3 + \frac{80\Omega}{3\psi^2}\right)\right); \\
 m_t &= \frac{4P_1 b^2 (1 - \mu^2)}{\pi^2 C^* (h + t)^2}; \quad k^2 = \frac{4(1 - \mu^2) b^4}{\pi^4 R^2 (h + t)^2}; \\
 \eta &= \frac{2D_n}{D} = \frac{1}{3} \left(\frac{t}{h+t}\right)^2; \quad \psi = \frac{2\lambda}{m}; \\
 \Omega &= \frac{\pi^2 Ch}{4b^2 G_c}; \quad \xi = \frac{2\sqrt{1-\mu^2}}{h+t} f; \\
 f &= \frac{w_0}{2}; \quad \lambda = \frac{a}{b}; \quad C = \frac{C^*}{1-\mu^2};
 \end{aligned}$$

A table of values of ψ , m_t , A , Bk and \mathcal{L}_0 is given as a function of m for the special case $\lambda = 1$, $k^2 = 10$, $\Omega = 2$, $\frac{t}{h+t} = 0.01$ and also the function $m_t = f(\mathcal{L})$

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for this case is tabulated as a function of Ω . Analysis of this and other cases shows that for the normal range of Ω for light filler the ratio $\gamma = \frac{m_t^+}{m_t^-}$ (decrease of load after instability occurs, m_t^- = lower critical load parameter) is not effected by Ω . γ decreases with increasing m and becomes 1 when $m = 5$. The results of the investigation show that for the case of a light filler the linear theory sufficiently describes the behavior and does not require the exact solution, while for stiff fillers the linear theory is insufficient. Orig. art. has: 21 formulas, 1 figure, and 2 tables.

ASSOCIATION: Moscow. Aviatsionnyy institut (Moscow Aviation Institute)

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ENCL: 00

SUB CODE: AP

NO REF Sov: 006

OTHER: 002

Card 4/4

L 11262-63 EWP(r)/EWT(m)/BDS--AFFTC--EM
ACCESSION NR: AT3003030

S/2942/63/000/001/0097/0109

AUTHOR: Karavanov, V. P. (Candidate of technical sciences)

52

16

TITLE: On large deflections of a clamped cylindrical light-core sandwich panel under uniform normal pressure

SOURCE: Moscow. Aviationsionnyy institut. Voprosy prochnosti i ustoychivosti elementov tonkostennyykh konstruktsiy, no. 1, 1963, 97-109

TOPIC TAGS: sandwich-panel buckling, sandwich-panel snapping, upper critical pressure, lower critical pressure, buckling, snapping, sandwich panel, critical pressure

ABSTRACT: Large deflections of a rectangular cylindrical shallow symmetrical light-core sandwich panel, clamped on all edges, are determined in the first approximation. The panel is under uniform normal pressure acting on its convex side; the material of its faces and core is isotropic, homogeneous, and elastic. It is assumed that the core resists only transverse shear and is rigid in this direction; the displacements in the face layers are finite, and the flexural rigidity of the latter is negligible. The nonlinear equations of equilibrium and of compatibility of strains are used as initial ones. Two alternatives in

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arrangement of the panel edges are considered: 1) the clamped edges are fixed and 2) the clamped edges are movable in their plane. In each case the conditions for the occurrence of the "oil-can" effect are analyzed, and expressions for the upper and lower critical (buckling) pressures and for the associated deflections are derived. The values of the pressures and deflection for panels of certain length-to-width ratios and curvature parameters are given in tables and diagrams. The minimum values of the curvature parameter at which the "oil-can" effect takes place are also given. The need for checking the strength both of the core as related to transverse shear and of its joint with faces is mentioned. Orig. art. has: 2 figures, 5 tables, and 33 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 27Jun63

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SUB CODE: AP

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OTHER: 000

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Card 2/2

KARAVANOV, V.F., kand. tekhn. nauk

Stability and large flexures of elongated shallow cylindrical sandwich panels with a light filler in case of a uniformly distributed lateral load. Rasch. na prochn. no. 9z280-301 '63
(MIRA 16s12)

KARAVANOV, V.G.; GUK, N.P.

Change of some hemodynamic indexes in brain tumors of varying
histostructure. Probl.neirokhir. 4:179-184 '59. (MIRA 13:11)
(BLOOD)
(BRAIN--TUMORS)